

Appl. No. 10/809,268
Amdt. Dated September 16, 2008
Reply to Office Action of June 17, 2007

Attorney Docket No. 81707.0193
Customer No. 26021

Remarks/Arguments

Claims 1, 6, and 10 are amended. Claim 5 is canceled. Claims 16-19 are withdrawn. Claims 1-4, 6-15, and 20-27 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Claim Rejections Under 35 USC § 103

Claims 1-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi (J.P. Patent Pub. No. 2000-149976). Claim 5 has been canceled without prejudice, thus the rejection against this claim is now moot.

Claims 1-4 and 6-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable. Applicants respectfully traverse this rejection.

Claim 1 is amended as follows:

A fuel cell assembly, which has a housing defining an electricity generation/combustion chamber, and electricity generation/combustion means disposed within said housing, and in which a fuel gas and an oxygen-containing gas are supplied to said electricity generation/combustion means, and a combustion gas formed within said electricity generation/combustion chamber is discharged from said electricity generation/combustion chamber,

wherein a heat exchanger having a first channel and a second channel is disposed on the inner side of at least one wall of said housing,

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 said combustion gas is discharged from an interior of said electricity generation/combustion chamber through said first channel of said heat exchanger, and one of said oxygen-containing gas and said fuel gas is supplied to said electricity generation/combustion means through said second channel of said heat exchanger, and

 wherein reforming means is disposed within said electricity generation/combustion chamber,

 said fuel gas is supplied to said electricity generation/combustion means through said reforming means, and

 said oxygen-containing gas is supplied to said electricity generation/combustion chamber through said second channel.

Applicants respectfully submits that Hiroshi fails to disclose or teach the following feature of claim 1: reforming cases disposed in the electricity generation/combustion chamber. Hiroshi teaches a fuel cell stack (13) disposed in the generation/combustion chamber (abstract), but does not disclose reforming cases. As stated in the Office Action at page 3, Hiroshi discloses gas supplying fuel cell assembly elements that are annexed to the electricity generation/combustion chamber and not disposed within the generation/combustion chamber. In addition, Hiroshi does not disclose or teach the technical advantages brought about by having the reforming cases in the generation/combustion chamber. The reforming cases allow the utilization of the high temperature produced within the electricity

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generation/combustion chamber for the reforming of the unreformed gas (specification page 21, lines 19-22).

Accordingly, Hiroshi is not obvious over the present claim 1. In addition, amended claim 1 includes the same features as allowed claim 20 and is patentable over Hiroshi for at least the same reasons as allowed claim 20. Likewise, dependent claims 2-4 are also patentable over Hiroshi for at least the same reasons as claim 1 and allowed claim 20. Furthermore, claim 6 has been amended to include the limitations of claim 1 and likewise includes the same features as allowed claim 20 and is patentable over Hiroshi for at least the same reasons as allowed claim 20. As such, dependent claims 7-9 are also patentable over Hiroshi for at least the same reasons as claim 6 and allowed claim 20. In view of the foregoing, Applicant respectfully requests that the Office withdraw the rejection.

In regards to independent claim 10, Applicants respectfully traverse this rejection.

Claim 10, reads as follows:

A fuel cell assembly, which has a housing defining an electricity generation/combustion chamber, and electricity generation/combustion means disposed within said housing, and in which a fuel gas and an oxygen-containing gas are supplied to said electricity generation/combustion means, and a combustion gas formed within said electricity generation/combustion chamber is discharged from said electricity generation/combustion chamber,

wherein a heat exchanger having a first channel and a second channel is disposed on the inner side of at least one wall of said housing,

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 said combustion gas is discharged from an interior of said electricity generation/combustion chamber through said first channel of said heat exchanger, and

 one of said oxygen-containing gas and said fuel gas is supplied to said electricity generation/combustion means through said second channel of said heat exchanger, wherein

 said electricity generation/combustion means includes a plurality of cell stacks,

 a first gas case supplied with one of said oxygen-containing gas and said fuel gas is disposed within said housing,

 said first gas case has a hollow-shaped manifold portion, and a plurality of hollow-shaped ejection portions protruding front one-side flat surface of said manifold portion substantially perpendicularly to said one-side flat surface,

 said ejection portions are arranged with spacing in a first direction on said one-side flat surface,

 an ejection hole is formed in at least one surface of each of said ejection portions, and

 each of said cell stacks is placed between the adjacent ejection portions.

Applicants respectfully submits that Hiroshi fails to disclose or teach the following features of claim 10: (a) a first gas case supplied with one of said oxygen-containing gas and said fuel gas is disposed within said housing; (b) first gas case

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has a hollow-shaped manifold portion; and a plurality of hollow-shaped ejection portions protruding from one-side flat surface of said manifold portion substantially perpendicularly to said one-side flat surface; (c) ejection portions are arranged with spacing in a first direction on said one-side flat surface; (d) ejection hole is formed in at least one surface of each of said ejection portions; and (e) cell stacks is placed between the adjacent ejection portion. Hiroshi does not disclose any of features (a)-(f) as recited in claim 10 (abstract). Likewise, Hiroshi does not disclose or teach the technical advantages, regarding the discharge and supply of oxygen containing gas, brought about by these features as disclosed in Applicants specification at page 3, lines 14-25; page 4, lines 7-13; and page 6, lines 5-11.

Accordingly, Hiroshi is not obvious over the present claim 10. In addition, amended claim 10 includes the same features as allowed claim 24 and is patentable over Hiroshi for at least the same reasons as allowed claim 24. Likewise, dependent claims 11-13 are also patentable over Hiroshi for at least the same reasons as claim 10 and allowed claim 24. In view of the foregoing, Applicant respectfully requests that the Office withdraw the rejection.

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Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4600 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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